NTPC Limited

रामागुण्डम
Ramagundam

361

To :

The Member Secretary
T.S. Pollution Control Board,
Paryavaran Bhawan,
A-3, Industrial
Estate,Sanathnagar,
HYDERABHAD- 500 018

Dear Sir,

Sub: Environmental Statement for the Financial year 2015 – 16 -Reg.

Enclosed please find here-with the Environmental Statement for the financial year **2015 – 16** for NTPC-Ramagundam prepared in Form V as per the Government of India Gazette Notification dated 13th March 1992.

Thanking you,

सेवा में :

सदस्य सचिव
ते स प्रदूषण नियंत्रण बोर्ड
पर्यावरण भवन
उद्योग संपदा
सनत नगर
हैदराबाद 500 018

प्रिय महोदय,

विषय :वित्तीय वर्ष 2015 – 16 के लिए पर्यावरण संबंधी विवरण के संबंध में

भारत सरकार के राजपत्र में प्रकाशित अधिसूचना 13 मार्च 1992 के अनुसार, वित्तीय वर्ष **2015 – 16** के लिये एन ठी पी सी लिमि रामगंण्डम का पर्यावरण संबंधी विवरण फार्म-V में इसके साथ संलग्न पायें.

सधन्यवाद

Yours faithfully/भवदीय,
कृते एन. ठी. पी. सी. लिमिठेड.

24.09.16

(B.K.GARG) / (बी के गर्ग)
(ADDL GENERAL MANAGER)(EMG) / अपर महाप्रबंधक [पर्या.प.समूह

The Environmental Engineer/पर्यावरण अभियंता
TS Pollution Control Board /ते स प्रदूषण नियंत्रण बोर्ड
Regional Office: Ramagundam
NTPC - TTS, Jyothinagar 505 215, District, KARIMNAGAR.

27/9/16

Office of the Environmental Engineer Telangana State Pollution Control Board Regional Office, Ramagundam, H.No. Sheet No.3, NTPC, TTS, Near Jawahar Public School, JYOTHINAGAR P.O. 505 215, Dist. Karimnagar (T.S.)

एनटीपीसी - रामगुण्डम, पो ज्योतिनगर - 505 215, जिला: करीमनगर, आं.प्र फैक्स / Fax: 08728-272656, 272111 तार: थर्मपावर
NTPC-Ramagundam, PO: Jyothinagar-505 215, Dist:Karimnagar, TS. Cable: THERMPOWER
REGD.OFFICE:NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi -110 003

RAMAGUNDAM SUPER THERMAL POWER STATION
NATIONAL THERMAL POWER CORPORATION LIMITED
P.O. JYOTHI NAGAR DIST: KARIM NAGAR

ENVIRONMENTAL STATEMENT FOR THE YEAR 2015-16

Submission

The Environmental Statement of NTPC- Ramagundam for the financial year 2015-2016 has been prepared in-house by the available in-company professional after audit of the system/schedules of monitoring and the reports generated during the year. The methodology adopted involved a survey of the monitoring program and procedures and critical evaluation and analysis of the data.

The Environmental statement for the year 2015-16 highlights the major Environmental Conservation and operation measures adopted at NTPC- Ramagundam during the period under reference as well as the improvements or change in the performance in these areas compared to the previous years.

Furnished herewith please

Date

EXECUTIVE DIRECTOR (R)
NTPC- RAMAGUNDAM
प्रशांत कुमार महापात्रा P.K. MOHAPATRA
कार्यकारी निदेशक Executive Director
एनटीपीसी लिमिटेड NTPC Limited, Ramagundam
ज्योतिनगर JYOTHINAGAR - 505 215

FORM-V

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31st MARCH 2016

PART-A

I	Name and address of the Owner/Occupier of the industry operation or process	**P.K. MOHAPATRA** **EXECUTIVE DIRECTOR (R)** NTPC-RAMAGUNDAM, P.O.:JYOTHINAGAR, RAMAGUNDAM, DIST: KARIMNAGAR (TS)-505215
II	Industry Category (STC/SIC Code)	N/A
III	Production Capacity	2600 MW
IV	Year of Establishment	UNIT- I 200 MW - 1983 October UNIT- II 200 MW - 1984 May UNIT- III 200 MW - 1984 December UNIT- IV 500 MW - 1988 June UNIT- V 500 MW - 1989 March UNIT- VI 500 MW - 1989 October UNIT- VII 500 MW - 2004 September
V	Date of last Environmental Statement submitted	28.09.2015

PART – B

WATER AND RAW MATERIAL CONSUMPTION

(i). Water Consumption (m^3/day)

a	**For Process**	i) DM Water for boiler feed = 2298 ii)Ash water + DM water used for regeneration 2919 + 382 = 3301	Total 5599	Total Water treated in Ash Water Recirculation System (AWRS) **=1,23,378 m^3/day**
b	**For Cooling**	i) Condenser cooling water = 89964 ii)Clarified water for auxiliary cooling = 76630	Total 166594	
c	**For Domestic**		11552	
	Total		**183745**	

Process (Plant) Water Drawn Per Product Output (Liter/Kilo Watt Hour):

Name of Products	Process water consumption per unit of product output	
	2014-15	**2015-16**
Electricity generation 20250.096 MU	0.23 Lit/kWH	0.10 Lit/kWH

ii. Raw material consumption

Name of raw materials	Name of products	Consumption of raw material per unit of output	
		2014-15	2015-16
a. Coal (kg/kwh)	Electricity Generation	0.699	0.671
b. Fuel Oil (ml/kwh)		0.230	0.181

PART – C

POLLUTION DISCHARGE TO ENVIRONMENT/UNIT OF OUTPUT

I. Wastewater Discharged (2015-2016)

Plant Effluent: 9,500 m^3/day, Sewage Effluent: 9,000 m^3/day

Pollutants	Quantity of Pollutant (kg/day)	Concentration of Pollutant (mg/l)	% of variation from prescribed standard with reasons
i. Process Effluent			
TSS	565.3	59.5	Nil
ii. Domestic Effluent			
BOD	259.2	28.8	Nil
TSS	355.5	39.5	Nil

II. Stack Emissions:

Flue Gas Flow Rate	
Stage – I (3 units of 200 MW)	918708 Nm^3/Hr/Unit
Stage – II (3 units of 500 MW)	2851236 Nm^3/Hr/Unit
Stage – III (1 unit of 500 MW)	2206800 Nm^3/Hr/Unit

Pollutant	Quantity of Pollutant Discharged (kg/day)	Concentration of Pollutant Discharged (mg/Nm^3)	% of Variation from Prescribed Standard with Reasons.
Stage – I : SPM	6074	91	Nil
Stage – II : SPM	22103	107	Nil
Stage – III : SPM	4396	83	Nil

PART – D

HAZARDOUS WASTES
(as specified under Hazardous waste/Management and handling Rules)

Hazardous Wastes	Total Quantity	
	During the previous financial year	During the current financial year
a. From Process	No hazardous waste is generated in the process of electricity generation. However, hazardous waste generated during maintenance activities are given as per the following statement	
b. From Pollution Control facilities		

STATEMENT OF HAZARDOUS WASTE, BATTERIES AND E-WASTE INVENTORY

S. No	Physical Form with Description	Total Quantity stock (Approx. Volume/ Weight)	
		as on 31.03.2015	as on 31.03.2016
I	**Hazardous Waste**		
1	Used oil	50.146 MT (44.9 MT disposed During 2014-15)	42.41 (103.97 MT disposed during 2015-16)
2	Used oil & grease drums	469 nos	997
3	Detoxified containers and container liners of Hazardous waste and chemicals	600 Nos	Nil (700 Nos disposed During 2015-16)
4	Used resins	800 lit	800 lit
5	Used torch cells	Nil	Nil
6	Oil soaked cotton	865kg	1445kg
7	Fuller earth	Nil	10.63 MT
II	**Used Lead Acid Batteries**		
	Used lead acid batteries	330 Nos (190 Nos disposed During 2014-15)	881 (800 Nos disposed During 2015-16)
III	**E waste**		
	E- Waste (Scrap computer system and peripherals)	Nil	10.52 (14 MT disposed during 2015-16)

PART – F

CHARACTERISATION OF HAZARDOUS AS WELL AS SOLID WASTES

S. No.	Component	Composition (%)	Quantum (MT)	Disposal Practice
I	**ASH**			
1	Sodium oxide	1.05	52755	Dry ash issue to Cement, RMC and other industries; use in own unit for ash dyke raising, Mine stowing, agriculture and balance to ash pond by wet disposal.
2	Magnesium oxide	0.06	3015	
3	Alumina	26.44	1328417	
4	Silica	58.5	2939198	
5	Phosphorous Pentoxide	0.52	26126	
6	Sulphur trioxide	0.76	38184	
7	Potassium oxide	1.27	63808	
8	Calcium oxide	4.1	205995	
9	Titanium dioxide	1.2	60291	
10	Manganese oxide	0.8	40194	
11	Iron oxide	5.14	258247	

PART-G

IMPACT OF POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

ASH: Providing of dry fly ash to Cement, Ready Mix Concrete (RMC) and Fly Ash Brick Manufacturing industries and Pond Ash to Clay Brick Manufacturing industries, and ash dyke rising helped in conservation of natural top soil.

Also Pond ash is also taken by SCCL for ash stowing in their operating underground mines of RG1 and Srirampur. Pond ash also supplied to farmers for use of ash in agriculture.

WATER: Through various modifications and conservation programmes, about 62 Million KL of water conserved during the year.

PART – H

ADDITIONAL MEASURES/INVESTMENT PROPOSAL FOR ENVIRONMENT PROTECTION INCLUDING ABATEMENT OF POLLUTION PREVENTION OF POLLUTION DURING 2015-16

- Dry ash extraction system has been installed and commissioned in all the units except Unit-1 which is under tendering stage.
- For facilitating the fly ash takers located at distant places, Rail loading system for Unit- 4 & 5 of Stage-II is constructed.
- In 2015, **Rs.20 lakhs** deposited to Divisional Forest Department, karimnagar under state Govt's Telanganakku Haritha Haram Program for 2 lakhs saplings.
- In 2016, **Rs.57 lakhs** deposited to Divisional Forest Department, karimnagar under state Govt's Telanganakku Haritha Haram Program for 5 lakhs saplings

PART – I

ANY OTHER MEASURES FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

- All the Stage-I, II and III units are provided with high efficient Electro-static Precipitators (ESP) of more than 99.5% efficiency and are in operation.
- The ash pond water generated is brought back to the Ash Water Recirculation System (AWRS), treated, mixed with other plant effluents and is reused for ash handling.
- Liquid Waste Treatment Plant (LWTP) to conserve water by increasing Cycle of Concentration (COC) of cooling water has been in operation.
- Dry Ash Extraction and Transportation Plant (DAETP) are in operation enabling issue of Ash to Cement, RMC and brick manufacturing industries.

Date:

Signature

Name PRASANT KUMAR MOHAPATRA

Design ED

Address NTPC Ramagundam

प्रशांत कुमार महापात्रा P.K. MOHAPATRA
कार्यकारी निदेशक Executive Director
एनटीपीसी लिमिटेड NTPC Limited, Ramagundam
ज्योतिनगर JYOTHINAGAR - 505 215